Parts of a Computer

Research

Today, you are going to continue to improve on your Google Search skills. There are 6 NECESSARY components of a desktop computer, and 2 more that are highly recommended. In total, you are going to be identifying 8 components for a typical desktop computer. These eight components will all be contained inside the computer. At this point we will NOT be dealing with any components that connect externally to a desktop computer.

In order to find out which components are necessary, you will want to start by looking at pre-built computers to see what components are typically included. This, however, will not tell you the whole story! Often, pre-built computers will not tell you about one of the most necessary components of the whole system.

There are other avenues you can explore, including websites such as "<u>Tom's Hardware</u>" that do reviews of computer components. Use the resources below, and any others you want, to complete the following questions.

Resources

www.tomshardware.com www.canadacomputers.com www.directcanada.com www.newegg.ca www.bestbuy.ca

1. Write the components you listed above (and any others you have found in your research) into the following table.

The 6 necessary components of a computer are...

- Motherboard.
- RAM (Random Access Memory).
- CPU (Central Processing Unit).
- Hard Drive.
- Power Supply Unit
- Cases

The highly recommended components of a computer are...

- Graphic Cards
- Fan

Other components of a computer are...

Peripherals Devices

2. Below, identify a necessary computer component, state its function in your own words, paste in a picture, list at least one spec (e.g. speed, capacity, cores, etc) and identify some manufacturers of that component.

Component Name: Motherboard

Function:

The motherboard allows the other computer components like RAM,CPU, and connector for input and output devices to all communicate with each other to make the computer run.

Manufacturers:

- ASRock.
- Asus.
- Biostar.
- EVGA Corporation.
- Gigabyte Technology.
- MSI (Micro-Star International)

Spec(s):
All motherboard include graphics output such as HD, HDMI, SD etc. All motherboard also hold CPU, memory chips, expansion slots, and power connectors.

Picture (paste here):





Component Name:

RAM (Random Access Memory)

Function:

RAM is a hardware in a computer that temporarily stores running programs or data for the programs. These programs or data will be stored till the computer it's turned off.

Manufacturers:

- Corsair.
- GSkill.
- Micron.
- OCZ.
- Mushkin.
- Kingston.
- Hynix.
- Transcend.

Spec(s):

Most RAM contal 168 pins and are around 5.25 inches long, RAM is usually measured in gigabytes.

Picture (paste here):





Component Name:

CPU (Central Processing Unit)

Function:

CPU makes logical decisions for the computer and sends signal to the computer about other parts. It can operate over 1 billion of operations per second.

Manufacturers:

- ARM
- Intel
- Advanced Micro Devices
- MCST
- SRISA
- Sun Microsystems

Spec(s):

CPU operating frequency is usually measured in hertz, the two most common brands are intel and AMD,

Picture (paste here):





Component Name: Hard Drive.

Function:

Hard drive is what stores all the data. It has a hard disk where the files and folders are physically located. The data

Manufacturers:

- Seagate Technology.
- Toshiba.
- Western Digital.

Spec(s):

Hard drives are usually 2.5 and r.5 inches. The capacity is usually measured in terabytes or gigabytes, the

is usually stored magnetically in the hard drive therefore the data remain in the hard drive even when the device is turned off.

speed of a hard drive at which the piater rotates is measured in RPM's.

Picture (paste here):





Component Name: Power Supply Unit.

Function:

Power supply unit is responsible for converting the power provided by the outlet to provide power to other parts in the device.

Manufacturers:

- Sea Sonic
- Corsair Components
- EVGA Corporation
- FSP Group
- Antec
- Thermaltake
- SilverStone Technology
- Cooler Master
- Delta Electronics
- XFX
- Fractal Design
- Enerplex

Spec(s):

Maximum output power is generally 2800, located usually in the case not as a part of the motherboard and are connected from peripheral power connectors.

Picture (paste here):





Component Name: Cases

Function:

Cases are used to hold all the parts together, as it protects the sensitive electronic parts from being damaged, it also keeps us safe from dangerous parts like the fan which can cut someone's finger or seriously injure someone and it prevents noise made by the fan and other noisy components.

- Manufacturers:
- Corsair Components
- Fractal Design
- Phanteks
- Cooler Master
- Lian Li
- Antec
- Intel
- Apevia
- Reidmax
- Zalman
- Rosewill Inc.

Spec(s):

Cases are usually constructed from steel, aluminum, plastic, glass or wood.

Picture (paste here):





4. Below, identify the two most important "highly recommended" components of a computer and their function.

Component Name: Graphics Card.

Function: Graphics Cards take data from the CPU (Central processing unit) and turn it into pictures. When the CPU sends information and/or data to the graphics card, the graphics card is responsible to turn that data and/or information into images. Graphics Card are mostly recommended for gamers so they can have a better gaming experience.

Manufacturers:

- Asus
- Micro-Star International
- Gigabyte Technology
- EVGA Corporation
- ZOTAC

Component Name:Fan

Function: Fans are usually inside or attached to the computer case and they are used to prevent the computer or computer components from overheating. As the fan blows cooler air from the outside, it removes warm air from the inside of the case in a certain components.

Manufacturers:

- Arctic
- Inte
- Alseye
- Noctua
- 5. Go to https://ca.pcpartpicker.com/ and click on "Start a system build". Choose all software and hardware options until your build is complete. When you are done, beside the word Permalink you will have a web address. This link stores your choices. Paste your link here:

 https://ca.pcpartpicker.com/list/skJfLJ
- 6. Refer to two specific hardware choices. How do you know if they will be compatible with your system? This means, how do you know if it will plug in to your motherboard without any issues? (hint: look at the specs and other listed features).

I know that they will be compatible with my system for the fact that I know that they will plug to my motherboard without any issues because I checked the sockets in my motherboard to determine weather my other computer components are compatible for my motherboard along with pcpartpicker verifying that my parts are compatible. Secondly, I read the specification and features of my computer components to determine whether my other computer components are compatible for my motherboard. Two hardware choices that are compatible are the CPU and the motherboard, for being the appropriate size and pins having a secure fit and also having a appropriate processing speed.